The creation and the development of the thematic Web-site on the toponymy of the European North of Russia

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Abstract

This paper introduces the thematical Web-site on the toponymy of the European North of Russia, the first Russian toponymic Web-site, implemented by the Karelian Research Centre of The Russian Academy of Science.

1 Introduction

Toponymy is the science, which operates with a huge amount of the initial material. The formalization and the computerization of toponymic data can help in toponymic research. The uniform technique of the information collecting and processing allows to make requests and receive data as fast as possible. The use of the Internet relows to perfome these operations with the help of any computer having an access to the web.

The main goal of the thematic Web-site of the toponimy of the Russian North creation and development is to promote the toponimy, to coordinate theoretical and practical research of the scientists from different regions of Russia and the foreign ones by providing quick informational exchange between specialists as well as by the organization of thematic teleconferences and the publication of the research collections.

We suppose our project results would contribute to the creation of thematic web-servers of toponimy in the other regions of Russia. It would help to complete the idea of creation a thematic collaboratory for the coordination of toponimic studies and research. [1, 2]

2 The structure of the thematic Web-site

The thematic web-site of the toponimy of the Russian North is supposed to be a part of a Toponimic Research Information System (the TORIS System) which includes a number of interrelated thematic servers and a multi-agent System for international support of collaborative researchers work in a computer network.

The thematic TORIS Web-site of KRC RAS (http://toris.krc.karelia.ru) is created on the UNIX Web-server Apache with the use of databases PostgreSQL and mSQL and CGI-technologies such as Perl and PHP3 to provide an access to databases. It contains:

- Relational database on toponymy of some Northwest regions of Russian Federation. It contains the information of 1177 toponyms, each of which is described with 25 characteristics. The database is created in PostgreSQL-server.

- The Web-interface as a component, that provides mechanism of access to the contents of toponymic database. It has been implemented with the use of PHP3 as a set of scripts to view, edit and add the toponymic data in database.

- Bibliographic database, that contains the information about the existing publications on toponymy. It is based on the PostgreSQL-server, and has a similar interface for work with bibliographic data.

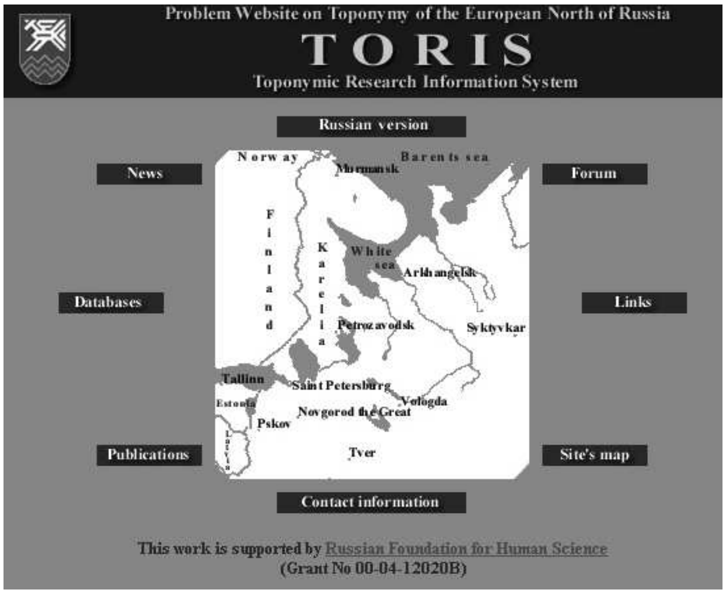

Figure 1: TORIS Web-site of KRC RAS

- Number of the electronic publications devoted to the research and development, news, contact information as well as other information materials.

- Software for the support of constantly acting thematic teleconference on the problems of computerization of toponymic research. The work in the conference is implemented as a work with an open mSQL database, that contains materials as a set of entries. Each entry consists of the information component, unique number and link to the previous entry. So, the content of the database can be represented as a tree. The interface for administrators and users, taking part in the conference, is implemented with the use of HTML and PHP3 scripts.

Except for the usual components: toponymic and bibliographic data-

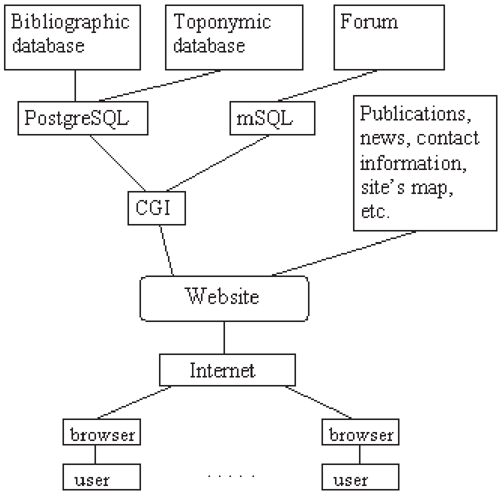

Figure 2: Architecture of the TORIS-server of KRC RAS

bases and information on a theme of research, TORIS Web-site may include special tools, which can help a researcher to get new information based on existing data. Nowadays a special software based on the usage of the methods of the Knowledge discovery in databases and Data mining technologies is being developed. These methods of the information analysis let the specialists determine the process and the language resources of the toponims evolution.

3 Conclusion

The site is constantly developed by improving its structure and design and the supplement of databases. The work on the creation and the development of the TORIS Web-server is supported by the Russian Foundation for Human Science (grant N 00-04-12020B).

References

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